

**SPE RESPONSE FOR CERTIFICATE OF CORRECTION**

DATE : 3/8/07

Paper No.: \_\_\_\_\_

TO SPE OF : ART UNIT 2134

SUBJECT : Request for Certificate of Correction for Appl. No.: 10/020427 Patent No.: RE39297E

Please respond to this request for a certificate of correction within 7 days.

Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

Please complete the response (see below) and forward the completed response to scanning using document code **COCX**.

***Virginia Tolbert***

Certificates of Correction Branch

703-308-9390 ext. 113

Thank You For Your Assistance

**The request for issuing the above-identified correction(s) is hereby:**

Note your decision on the appropriate box.

*P.C.* ☒ **Approved**

All changes apply.

☐ **Approved in Part**

Specify below which changes **do not** apply.

☐ **Denied**

State the reasons for denial below.

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
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*[Signature]*  
 SPE

2137  
 Art Unit

MTS-520US3

10/020427  
RE 39297 E

PATENT



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent Number: RE39,297 E  
Issued: September 19, 2006  
Name of Patentee: Mitsuaki Oshima et al.  
Title of Invention: MARK FORMING APPARATUS, METHOD OF FORMING LASER MARK ON OPTICAL DISK, REPRODUCING APPARATUS, OPTICAL DISK AND METHOD OF PRODUCING OPTICAL DISK

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
FOR PTO MISTAKE (37 C.F.R. § 1.322(a))**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Decision and Certificate of Correction  
Branch of the Patent Issue Division

**Certificate**  
FEB 08 2007  
**of Correction**

1. Attached in duplicate is Form PTO-1050 with at least one copy being suitable for printing.
2. Correction of the Official Letters Patent is respectfully requested in view of the following text which appears correctly in the application file:

On the Title Page (Page 2), Item (56) References Cited, FOREIGN PATENT DOCUMENTS Duplicate reference "EP 0545472" should be deleted.

On the Title Page (Page 2), Item (56) References Cited, FOREIGN PATENT DOCUMENTS Delete "JP 5-325193 1/1991" and add -- JP 5-325193 12/1993 -- as indicated in the IDS dated December 7, 2001

On the Title Page (Page 2), Item (56) References Cited, FOREIGN PATENT DOCUMENTS Add:

-- JP 58-211343 12/1983 --  
-- JP 61-248250 11/1986 --  
-- JP 03-078178 4/1991 --  
-- JP 03-116441 5/1991 --  
-- JP 02-056750 2/1990 --

as indicated in the Supplemental IDS dated February 19, 2003

FEB 09 2007

On the Title Page (Page 2), Item (56) References Cited, FOREIGN PATENT DOCUMENTS  
Add:

--JP 5-234321 9/1993 --

as indicated in the Supplemental IDS dated April 3, 2003

On the Title Page (Page 2), Item (56) References Cited, OTHER PUBLICATIONS  
Add:

-- Korean Patent Office Official Action , dated March 5, 2003 --

as indicated in the Supplemental IDS dated April 3, 2003

At Column 42, line 20, claim 28 of the Letters Patent,  
after "trimmed" add -- by a laser --  
as indicated on page 9, line 12, claim 31 of the Amendment dated December 19, 2002  
Claim 31 of the Amendment is claim 28 of the Letters Patent

At Column 42, line 23, claim 28 of the Letters Patent,  
delete "on a track of" and add -- functioning as a track on --  
as indicated on page 3, line 15, claim 31 of the Second Supplemental Preliminary  
Amendment dated August 30, 2002  
Claim 31 of the Second Supplemental Preliminary Amendment is claim 28 of the  
Letters Patent.

At Column 42, line 30, claim 29 of the Letters Patent,  
after "trimming" add -- by a laser --  
as indicated on page 10, line 1, claim 32 of the Amendment dated December 19, 2002  
Claim 32 of the Amendment is claim 29 of the Letters Patent

At Column 42, line 31, claim 29 of the Letters Patent,  
delete "on a track of" and add -- functioning as a track on --  
as indicated on page 3, line 25, claim 32 of the Second Supplemental Preliminary  
Amendment dated August 30, 2002  
Claim 32 of the Second Supplemental Preliminary Amendment is claim 29 of the  
Letters Patent

3. Please send the Certificate to:

Name: Lawrence E. Ashery  
P.O. Box 980  
Valley Forge, PA 19482  
(610) 407-0700

FEB 09 2007

MTS-520US3

PATENT

Name of Assignee: Matsushita Electric Industrial Co., Ltd.  
Assignment Recorded on: April 10, 1996  
Reel: 7884  
Frame: 0122

Respectfully submitted,

  
Lawrence E. Ashery, Reg. 34,515  
Attorney for Applicants

LEA/ds

Enclosure: Form PTO-1050 (in duplicate)

Dated: January 31, 2007

P.O. Box 980  
Valley Forge, PA 19482  
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The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 Attn: Decision and Certificate of Correction Branch of the Patent Issue Division on:

January 31, 2007

Deborah Spratt



ds/90517

FEB 09 2007

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO: RE39,297 E  
APPLICATION NO.: 10/020,427  
DATED: SEPTEMBER 19, 2006  
INVENTOR(S): MITSUAKI OSHIMA ET AL.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page (Page 2), Item (56) References Cited, FOREIGN PATENT DOCUMENTS  
Delete Duplicate Reference "EP 0545472 6/1993"

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Column 42  
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Column 42  
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Column 42  
Line 30, after "trimming" add -- by a laser --

Column 42  
Line 31, delete "on a track of" add -- functioning as a track on --

Mailing Address of Sender:

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This collection of information is required by 37 CFR 1.322, 1.323 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO: RE39,297 E  
APPLICATION NO.: 10/020,427  
DATED: SEPTEMBER 19, 2006  
INVENTOR(S): MITSUAKI OSHIMA ET AL.

Page 1 of 1

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Column 42  
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PTO/SB/21 (09-04) (AW 10/2004)

Approved for use through 7/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

U.S. Patent No. RE39,297 E

Issued September 19, 2006

First Named Inventor Mitsuki Oshima et al.

Art Unit

Examiner Name

Attorney Docket No. MTS-520US3

**ENCLOSURES (Check all that apply)**☐ Fee Transmittal Form☐ Fee Attached☐ Amendment/Reply☐ After Final☐ Affidavits/Declaration(s)☐ Extension of Time Request☐ Express Abandonment Request☐ Information Disclosure Statement☐ Certified Copy of Priority Document(s)☐ Response to Missing Parts/  
Incomplete Application☐ Response to Missing Parts  
under 37 CFR 1.52 or 1.53☐ Drawing(s)☐ Licensing-related Papers☐ Petition☐ Petition to Convert to a  
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Return Postcard**Remarks:****SIGNATURE OF APPLICANT, ATTORNEY OR AGENT**

Firm Name RainerPrestia

Signature

Printed Name Lawrence E. Ashery

Date January 31, 2007

Registration No. 34,515

**CERTIFICATE OF TRANSMISSION / MAILING**

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Typed or Printed Name Deborah Spratt

Date January 31, 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Office, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, ALEXANDRIA, VA 22313-1450.

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invention is not limited to the illustrated example. For example, the information may be written on a floppy disk as a different medium.

Furthermore, in the above embodiment, examples have been described wherein an elliptic function or an RSA function is applied to the digital signature or digital signature-like technique or encryption technique. However, the invention is not limited to the illustrated examples; rather, any other encryption technique may be used.

Moreover, in the above embodiment, the position information was encrypted or was provided with a digital signature, but instead, the position information itself may be written directly on the disk. In that case also, the invention is effective in preventing pirated disks from being made by copying the marking and its position information.

The optical disk of the invention has a structure such that a reflective film is sandwiched directly or indirectly between two members resistant to laser light and a marking is formed by laser on the reflective film. The above embodiment has described examples in which this structure is used for a piracy prevention technique, but it will be appreciated that such a structure may also be applied to other techniques. In the above embodiment, the optical disk of the invention has been described as being fabricated by laminating two substrates with an adhesive layer interposed therebetween. However, the adhesive layer may be omitted, or instead, a member made of a different material, such as a protective layer, may be used; that is, any suitable structure may be used as long as the reflective film is sandwiched directly or indirectly between two members resistant to laser light. Furthermore, in the above embodiment, the optical disk of the invention has been described as comprising substrates as the members that are laminated together, but other members such as protective layers may be used; that is, any member that has resistance to laser light may be used.

In the above embodiment, a combination of two kinds of cipher, secret key cipher and public key cipher, has been described as a representative example of a combination of multiple kinds of ciphers of different generations, but the invention is not limited to this particular example. For example, as an alternative combination of different generations, public key cipher having a 256-bit secret key, which is less secure but can be processed by a slow CPU, and public key cipher having a 1024-bit secret key, which provides great security but can only be processed by a high-speed CPU, may be used. In this way, with a combination of public key ciphers having different security levels, the same effect of preserving compatibility between different generations can be obtained. Furthermore, a combination of three kinds of ciphers of different generations, such as secret key cipher, low-security public key cipher, and high-security public key cipher, may also be used.

What is claimed is:

[1. A marking forming apparatus comprising:

marking forming means for applying at least one marking to at least one reflective film formed to a disk;

marking position detecting means for detecting at least one position of said marking; and

position information output means for outputting said detected position as position information of said marking.]

[2. A marking forming apparatus according to claim 1, further comprising position information writing means for writing at least said output position information or information concerning said position information to said disk or to a different medium.]

[3. A marking forming means according to claim 2, wherein said position information writing means includes

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encrypting means for encrypting at least said output position information or information concerning said position information, and writes contents thus encrypted to said disk.]

[4. A marking forming apparatus according to claim 3, wherein when the encrypting means performs the encryption, it uses a secret key of a public key encryption function.]

[5. A marking forming apparatus according to claim 3, wherein said encrypting means includes

first encrypting means for encrypting software feature information concerning features of software contents written to said disk and a sub public key of a public key encryption function by using a master secret key of said public key encryption function, and

second encrypting means for encrypting said position information or information concerning said position information by using a sub secret key corresponding to said sub public key,

and the writing at least said output position information or information concerning said position information means writing contents encrypted by said first encrypting means and contents encrypted by said second encrypting means to said disk.]

[6. A marking forming apparatus according to claim 2, wherein said position information writing means includes digital signature means for applying a digital signature to at least said output position information or information concerning said position information,

and the writing at least said output position information or information concerning said position information means writing information concerning a result of said digital signature application to said disk.]

[7. A marking forming apparatus according to claim 6, wherein when said digital signature means applies said digital signature, it uses a secret key of a public key encryption function.]

[8. A marking forming apparatus according to claim 6, wherein

said digital signature means includes

first digital signature means for applying a digital signature to software feature information concerning features of software contents written to said disk and to a sub public key of a public key encryption function by using a master secret key of said public key encryption function, and

second digital signature means for applying a digital signature to said position information or information concerning said position information by using a sub secret key corresponding to said sub public key,

and the writing at least said output position information or information concerning said position information means writing a result of the application of said digital signature by said first digital signature means and a result of the application of said digital signature by said second digital signature means to said disk.]

[9. A marking forming apparatus according to claim 2, wherein the position information writing means writes coexistently such informations that are processed by using plural kinds of encryption techniques or digital signature techniques with regard to a same position information.]

[10. A marking forming apparatus according to claim 4, 5, 7, or 8, wherein said public key encryption function is an RSA function or an elliptic function.]

[11. A marking forming apparatus according to claim 10, wherein said disk is constructed by laminating two disks together.]

[12. A method of forming a laser marking to an optical disk, comprising the steps of:

forming at least one disk;  
forming a reflective film to said formed disk;  
laminating two disks together, said disks including at least one disk with said reflective film formed thereon; and  
forming at least one marking by a laser on said reflective layer of the laminated disks.]

[13. A reproduction apparatus comprising:

position information reading means for reading position information of at least one marking or information concerning said position information, said marking being formed to at least one reflective film formed to a disk and being detected for a position thereof, at least the position thus detected being output as said position information of said marking;

marking reading means for reading information concerning at least one actual position of said marking;

comparing/judging means for performing comparison and judgement by using a result of reading by said position information reading means and a result of reading by said marking reading means; and

reproducing means for reproducing recorded data on said optical disk in accordance with a result of the comparison and judgement performed by said comparing/judging means.]

[14. A reproduction apparatus according to claim 13, wherein at least said output position information or information concerning said position information is written to said disk by position information writing means.]

[15. A reproduction apparatus according to claim 14, wherein

said position information writing means includes encrypting means for encrypting at least said output position information or information concerning said position information, and

said position information reading means includes decrypting means corresponding to said encrypting means, and by using said decrypting means, decrypts said encrypted position information or information concerning said position information.]

[16. A reproduction apparatus according to claim 15, wherein when the encrypting means performs the encryption, it uses a secret key of a public key encryption function, and

said decrypting means performs the decryption by using a public key corresponding to said secret key.]

[17. A reproduction apparatus according to claim 15, wherein

said encrypting means includes

first encrypting means for encrypting software feature information concerning features of software contents written to said disk and a sub public key of a public key encryption function by using a master secret key of said public key encryption function, and

second encryption means for encrypting said position information or information concerning said position information by using a sub secret key corresponding to said sub public key,

and said decrypting means includes

first decrypting means for decrypting said encrypted software feature information and the encrypted sub public key of said public key encryption function, by using a master public key corresponding to said master secret key, and

second decrypting means for decrypting said encrypted position information or information concerning said position information by using the sub public key thus decrypted.]

[18. A reproduction apparatus according to claim 14, wherein

said position information writing means includes

digital signature means for applying a digital signature to at least said output position information or information concerning said position information, and writes information concerning a result of said digital signature application to said disk,

and said position information reading means includes authenticating means corresponding to said digital signature means, and

position information extracting means for obtaining said position information from an authentication process performed by said authenticating means and/or from said information concerning the result of said digital signature application,

when an output indicating correctness of said authentication result is produced from said authenticating means, said comparing/judging means performs the comparison and judgement by using the position information obtained by said position information extracting means and the result of reading by said marking reading means, and when said output indicating correctness is not produced, the reproduction is not performed.]

[19. A reproduction apparatus according to claim 18, wherein

when said digital signature means applies said digital signature, it uses a secret key of a public key encryption function, and

said authenticating means performs said authentication by using a public key corresponding to said secret key.]

[20. A reproduction apparatus according to claim 18, wherein

said digital signature means includes

first digital signature means for applying a digital signature to software feature information concerning features of software contents written to said disk and to a sub public key of a public key encryption function by using a master secret key of said public key encryption function, and

second digital signature means for applying a digital signature to said position information or information concerning said position information by using a sub secret key corresponding to said sub public key,

and the writing at least said output position information or information concerning said position information means writing a result of the application of said digital signature by said first digital signature means and a result of the application of said digital signature by said second digital signature means to said disk,

wherein said position information reading means includes;

authenticating means for authenticating said digital signature-applied software feature information and sub public key of said public key encryption function, by using a master public key corresponding to said master secret key, and

position information extracting means for obtaining said position information from said authentication process thereof and/or from the result of said digital signature application by using the sub public key obtained from said authentication process and/or from the result of said digital signature application,

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and when an output indicating correctness of said authentication result is produced from said authenticating means, said comparing/judging means performs the comparison and judgement by using the position information obtained by said position information extracting means and the result of reading by said marking reading means, and when said output indicating correctness is not produced, the reproduction is not performed.]

[21. A reproduction apparatus according to any one of claims 13 to 20, wherein the reproduction is not performed when, as a result of said comparison and judgement, the result of reading by said position information reading means and the result of reading by said marking reading means do not agree with each other.]

[22. A reproduction apparatus according to claim 16, 17, 19, or 20, wherein said public key encryption function is an RSA function or an elliptic function.]

[23. A method of manufacturing an optical disk, comprising the steps of:

forming at least one disk;  
forming a reflective film to said formed disk;  
applying at least one marking to said reflective film;  
detecting at least one position of said marking; and  
outputting said detected position as position information of said marking, and encrypting said information for writing to said disk.]

[24. A method of manufacturing an optical disk, comprising the steps of:

forming at least one disk;  
forming a reflective film to said formed disk;  
applying at least one marking to said reflective film;  
detecting at least one position of said marking; and  
outputting said detected position as position information of said marking, and applying a digital signature in relation to said position information for writing to said disk.]

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[25. An optical disk wherein at least one marking is formed by a laser to at least one reflective film of the disk holding data written thereon and at least position information of said marking or information concerning said position information is written to said disk in an encrypted form or with a digital signature applied thereto.]

[26. An optical disk having a structure such that at least one reflective film is one of sandwiched directly and sandwiched indirectly between two members formed from material resistant to laser light,

wherein at least one marking is formed by a laser to said reflective film.]

[27. A marking forming apparatus according to claim 9, wherein said disk is constructed by laminating two disks together.]

28. *An optical disk comprising:*

*a data zone having pits indicating data signals readable by light radiation;*

*a reflective layer formed on the data zone; and portions of the reflective layer being trimmed forming markings,*

*wherein the markings form a barcode pattern indicating information and are formed on the pits on a track of the optical disk.*

29. *A method of manufacturing an optical disk comprising the steps of:*

*forming, on a substrate, a data zone having pits indicating data signals readable by light radiation;*

*forming a reflective layer on the data zone; and trimming the reflective layer to form markings on the pits on a track of the optical disk;*

*wherein the markings form a barcode pattern indicating information.*

\* \* \* \* \*